

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
David Finlay TAYLOR et al. :
Serial No. Not yet assigned : Group Art Unit:
Filed: herewith : Examiner: N/A
For: NETWORK MEASUREMENT METHOD AND APPRATUS

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

Dear Sir:

Preliminary to examination of the above-referenced application, please amend the application:

IN THE CLAIMS:

Please amend claim 20, line 3 as follows:

20. (Amended) An apparatus for measuring parameters of an electronic system by reference to a series of data samples, comprising:

clock recovery circuitry for recovering a clock signal from an input signal received from the electronic system;

a sampler for sampling and digitising said recovered clock signal to produce a series of digital clock samples; and

a processor for processing said digital clock samples digitally with reference to a local digital reference signal to produce digital baseband frequency in-phase (I) and quadrature (Q) components, processing said digital I and Q components to extract digital phase information of said clock signal, and processing said digital phase information to determine a parameter of the electronic system.

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REMARKS

Claim 20 has been amended to change the word "means" to – circuitry – to avoid the narrow interpretation of " means plus function clauses" under 35 USC 112 paragraph 6.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Marked-Up Version Showing Changes".

Respectfully submitted,

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15. A method as claimed in claim 14 wherein the filtering comprises low-pass digital filtering of the phase information.

16. A method as claimed in claim 14 wherein the resultant time interval error data is further processed to derive wander data.

17. A method as claimed in claim 1 implemented in a form of hardware switchable between phase-locked and independent reference signals according to the measurement desired.

18. A method as claimed in claim 1 wherein the method is used as pre-processing for a composite measurement comprising at least one of MTIE, MRTIE, TDEV, RMS and Pk-Pk, as defined by any ITU standard.

19. A method as claimed in claim 18 wherein said pre-processing and the derivation of said composite measurement are performed within a single digital signal processor.

20. An apparatus for measuring parameters of an electronic system by reference to a series of data samples, comprising:

clock recovery ^{means} for recovering a clock signal from an input signal received from the electronic system;

a sampler for sampling and digitising said recovered clock signal to produce a series of digital clock samples; and

a processor for processing said digital clock samples digitally with reference to a local digital reference signal to produce digital baseband frequency in-phase (I) and quadrature (Q) components, processing said digital I and Q components to extract digital phase information of said clock signal, and processing said digital phase information to determine a parameter of the electronic system.